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RAW SEQUENCE LISTING DATE: 12/10/2002 P.6
PATENT APPLICATION: **US/10/037,311A** TIME: 15:43:38

Input Set : **A:\MS00-001C2 XFTASE.txt**
Output Set: **N:\CRF4\12102002\J037311A.raw**

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 3 <110> APPLICANT: MICHIGAN STATE UNIVERSITY
 5 <120> TITLE OF INVENTION: XYLOGLUCAN FUCOSYLTRANSFERASES
 7 <130> FILE REFERENCE: MS00-001C2
 9 <140> CURRENT APPLICATION NUMBER: US 10/037,311A
10 <141> CURRENT FILING DATE: 2001-11-09
12 <150> PRIOR APPLICATION NUMBER: US60/117,555
13 <151> PRIOR FILING DATE: 1999-01-28
15 <160> NUMBER OF SEQ ID NOS: 15
17 <170> SOFTWARE: PatentIn version 3.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 558
21 <212> TYPE: PRT
22 <213> ORGANISM: Arabidopsis thaliana
24 <400> SEQUENCE: 1
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31             20                  25                  30
34 Tyr Leu Ser Ser Gly Thr Met Lys Leu Thr Arg Thr Phe Thr Thr Cys
35         35                  40                  45
38 Leu Ile Val Phe Ser Val Leu Val Ala Phe Ser Met Ile Phe His Gln
39     50                  55                  60
42 His Pro Ser Asp Ser Asn Arg Ile Met Gly Phe Ala Glu Ala Arg Val
43 65                  70                  75                  80
46 Leu Asp Ala Gly Val Phe Pro Asn Val Thr Asn Ile Asn Ser Asp Lys
47                 85                  90                  95
50 Leu Leu Gly Gly Leu Leu Ala Ser Gly Phe Asp Glu Asp Ser Cys Leu
51             100                 105                 110
54 Ser Arg Tyr Gln Ser Val His Tyr Arg Lys Pro Ser Pro Tyr Lys Pro
55         115                 120                 125
58 Ser Ser Tyr Leu Ile Ser Lys Leu Arg Asn Tyr Glu Lys Leu His Lys
59     130                 135                 140
62 Arg Cys Gly Pro Gly Thr Glu Ser Tyr Lys Lys Ala Leu Lys Gln Leu
63 145                 150                 155                 160
66 Asp Gln Glu His Ile Asp Gly Asp Gly Glu Cys Lys Tyr Val Val Trp
67                 165                 170                 175
70 Ile Ser Phe Ser Gly Leu Gly Asn Arg Ile Leu Ser Leu Ala Ser Val
71             180                 185                 190
74 Phe Leu Tyr Ala Leu Leu Thr Asp Arg Val Leu Leu Val Asp Arg Gly
75         195                 200                 205
78 Lys Asp Met Asp Asp Leu Phe Cys Glu Pro Phe Leu Gly Met Ser Trp
79     210                 215                 220
82 Leu Leu Pro Leu Asp Phe Pro Met Thr Asp Gln Phe Asp Gly Leu Asn
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RAW SEQUENCE LISTING DATE: 12/10/2002
PATENT APPLICATION: US/10/037,311A TIME: 15:43:38

Input Set : A:\MS00-001C2 XFTASE.txt
Output Set: N:\CRF4\12102002\J037311A.raw

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83 225                 230                 235                 240
86 Gln Glu Ser Ser Arg Cys Tyr Gly Tyr Met Val Lys Asn Gln Val Ile
87             245                 250                 255
90 Asp Thr Glu Gly Thr Leu Ser His Leu Tyr Leu His Leu Val His Asp
91         260                 265                 270
94 Tyr Gly Asp His Asp Lys Met Phe Phe Cys Glu Gly Asp Gln Thr Phe
95     275                 280                 285
98 Ile Gly Lys Val Pro Trp Leu Ile Val Lys Thr Asp Asn Tyr Phe Val
99 290                 295                 300
102 Pro Ser Leu Trp Leu Ile Pro Gly Phe Asp Asp Glu Leu Asn Lys Leu
103 305                 310                 315                 320
106 Phe Pro Gln Lys Ala Thr Val Phe His His Leu Gly Arg Tyr Leu Phe
107                 325                 330                 335
110 His Pro Thr Asn Gln Val Trp Gly Leu Val Thr Arg Tyr Tyr Glu Ala
111             340                 345                 350
114 Tyr Leu Ser His Ala Asp Glu Lys Ile Gly Ile Gln Val Arg Val Phe
115         355                 360                 365
118 Asp Glu Asp Pro Gly Pro Phe Gln His Val Met Asp Gln Ile Ser Ser
119 370                 375                 380
122 Cys Thr Gln Lys Glu Lys Leu Leu Pro Glu Val Asp Thr Leu Val Glu
123 385                 390                 395                 400
126 Arg Ser Arg His Val Asn Thr Pro Lys His Lys Ala Val Leu Val Thr
127                 405                 410                 415
130 Ser Leu Asn Ala Gly Tyr Ala Glu Asn Leu Lys Ser Met Tyr Trp Glu
131             420                 425                 430
134 Tyr Pro Thr Ser Thr Gly Glu Ile Ile Gly Val His Gln Pro Ser Gln
135         435                 440                 445
138 Glu Gly Tyr Gln Gln Thr Glu Lys Lys Met His Asn Gly Lys Ala Leu
139 450                 455                 460
142 Ala Glu Met Tyr Leu Leu Ser Leu Thr Asp Asn Leu Val Thr Ser Ala
143 465                 470                 475                 480
146 Trp Ser Thr Phe Gly Tyr Val Ala Gln Gly Leu Gly Gly Leu Lys Pro
147                 485                 490                 495
150 Trp Ile Leu Tyr Arg Pro Glu Asn Arg Thr Thr Pro Asp Pro Ser Cys
151             500                 505                 510
154 Gly Arg Ala Met Ser Met Glu Pro Cys Phe His Ser Pro Pro Phe Tyr
155         515                 520                 525
158 Asp Cys Lys Ala Lys Thr Gly Ile Asp Thr Gly Thr Leu Val Pro His
159 530                 535                 540
162 Val Arg His Cys Glu Asp Ile Ser Trp Gly Leu Lys Leu Val
163 545                 550                 555
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167 <211> LENGTH: 1662
168 <212> TYPE: DNA
169 <213> ORGANISM: Arabidopsis thaliana
171 <400> SEQUENCE: 2
172 atggatcaga attcgtacag gagaagatcg tctccgatca gaaccactac cggcggttca     60
174 aagtccgtta atttctccga actacttcaa atgaagtatc tcagctccgg tacgatgaag    120
176 ctcacgagaa ccttcactac ttgcttgata gtcttctctg tactagtagc attctcaatg    180
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RAW SEQUENCE LISTING DATE: 12/10/2002
PATENT APPLICATION: **US/10/037,311A** TIME: 15:43:38

Input Set : **A:\MS00-001C2 XFTASE.txt**
Output Set: **N:\CRF4\12102002\J037311A.raw**

178 atctttcacc aacacccatc tgattcaaat cggattatgg gtttcgccga agctagagtt 240
180 ctcgacgccg gagttttccc aaattctgat aagcttctcg gagggctact tgcttctggt 300
182 tttgatgaag attcttgcct tagtaggtac caatcagttc attaccgtaa accttcacct 360
184 tacaagccat cttcttatct catctctaag cttagaaact acgaaaagct tcacaagcga 420
186 tgtggtccgg gtactgaatc ttacaagaaa gctctaaaac aacttgatca agaacatatt 480
188 gatggtgatg gtgaatgcaa atatgttgtg tggatttctt ttagcggctt agggaacagg 540
190 atactttctc tagcctcggt ttttctttac gcgcttttaa cggatagagt cttgcttgtt 600
192 gaccgaggga aagacatgga tgatctcttt tgcgagccgt ttctcggtat gtcgtggttg 660
194 ctacctttag atttccctat gactgatcag tttgatggat taaatcaaga atcatctcgt 720
196 tgttatggat atatggtgaa gaatcaggtg attgatactg agggaacttt gtctcatctt 780
198 tatcttcatc ttgttcatga ttatggagat catgataaga tgttcttctg tgaaggagac 840
200 caaacattca tcgggaaagt cccttggttg attgttaaaa cagacaatta ctttgttcca 900
202 tctctgtggt taataccggg tttcgatgat gaactaaaca agctattccc acagaaagcg 960
204 actgtctttc atcacttagg taggtatctt tttcacccaa ctaaccaagt atggggctta 1020
206 gtcactagat actacgaagc ttacttatcg catgcggatg agaagattgg gattcaagta 1080
208 agagttttcg atgaagaccc gggtccattt cagcatgtga tggatcagat ttcatcttgt 1140
210 actcaaaaag agaaacttct acctgaagta gacacactag tggagagatc tcgccatgtt 1200
212 aataccccca aacacaaagc cgtgcttgtc acatctttga acgcgggtta cgcggagaac 1260
214 ttaaagagta tgtattggga atatccgaca tcaactggag aaatcatcgg tgttcatcag 1320
216 ccgagccaag aaggttatca gcagaccgaa aaaaagatgc ataatggcaa agctcttgcg 1380
218 gaaatgtatc ttttgagttt gacagataat cttgtgacaa gtgcttggtc tacatttgga 1440
220 tatgtagctc aaggtcttgg aggtttaaag ccttggatac tctatagacc cgaaaaccgt 1500
222 acaactcccg atccttcgtg tggtcgggct atgtcgatgg agccttgttt ccactcgcct 1560
224 ccattctatg attgtaaagc gaaaacgggt attgacacgg gaacactagt tcctcatgtg 1620
226 agacattgtg aggatatcag ctggggactt aagctagtat ga 1662
229 <210> SEQ ID NO: 3
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231 <212> TYPE: DNA
232 <213> ORGANISM: Arabidopsis thaliana
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237 aagtccgtta atttctccga actacttcaa atgaagtatc tcagctccgg tacgatgaag 120
239 ctcacgagaa ccttcactac ttgcttgata gtcttctctg tactagtagc attctcaatg 180
241 atctttcacc aacacccatc tgattcaaat cggattatgg gtttcgccga agctagagtt 240
243 ctcgacgccg gagttttccc aaatgttact aacatcagta tgtgttcttc caagtcaaag 300
245 ttttgagctt tattacttta gatctcgttc tttacactac gcatttgcct ctgtatgtcc 360
247 atagctcttg gtcgatttca atttgagatc tatactcata aaaattgagt ctttgtcagt 420
249 cacaagacta ctatttttgg tttgatgttg ttttggtgaa aaagtgctct tttgttttgg 480
251 tctcagctta gactgttaca ttcgtttttt ccgagttttt tagattttgt tctgattctg 540
253 ttttgttttg tagattctga taagcttctc ggagggctac ttgcttctgg ttttgatgaa 600
255 gattcttgcc ttagtaggta ccaatcagtt cattaccgta aaccttcacc ttacaagcca 660
257 tcttcttatc tcatctctaa gcttagaaac tacgaaaagc ttcacaagcg atgtggtccg 720
259 ggtactgaat cttacaagaa agctctaaaa caacttgatc aagaacatat tgatggtgat 780
261 ggtgaatgca aatatgttgt gtggatttct tttagcggct tagggaacag gatactttct 840
263 ctagcctcgg tttttcttta cgcgctttta acggatagag tcttgcttgt tgaccgaggg 900
265 aaagacatgg atgatctctt ttgcgagccg tttctcggta tgtcgtggtt gctaccttta 960
267 gatttcccta tgactgatca gtttgatgga ttaaatcaag aatcatctcg ttgttatgga 1020
269 tatatggtga agaatcaggt gattgatact gagggaactt tgtctcatct ttatcttcat 1080
271 cttgttcatg attatggaga tcatgataag atgttcttct gtgaaggaga ccaaacattc 1140

RAW SEQUENCE LISTING DATE: 12/10/2002
PATENT APPLICATION: **US/10/037,311A** TIME: 15:43:38

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Output Set: **N:\CRF4\12102002\J037311A.raw**

273 atcgggaaag tcccttggtt gattgttaaa acagacaatt actttgttcc atctctgtgg 1200
275 ttaataccgg gtttcgatga tgaactaaac aagctattcc cacagaaagc gactgtcttt 1260
277 catcacttag gtaggtatct ttttcaccca actaaccaag tatggggctt agtcactaga 1320
279 tactacgaag cttacttatc gcatgcggat gagaagattg ggattcaagt aagagttttc 1380
281 gatgaagacc cgggtccatt tcagcatgtg atggatcaga tttcatcttg tactcaaaaa 1440
283 gagaaacttc tacctgaagt agacacacta gtggagagat ctcgccatgt taataccccc 1500
285 aaacacaaag ccgtgcttgt cacatctttg aacgcgggtt acgcggagaa cttaaagagt 1560
287 atgtattggg aatatccgac atcaactgga gaaatcatcg gtgttcatca gccgagccaa 1620
289 gaaggttatc agcagaccga aaaaaagatg cataatggca aagctcttgc ggaaatgtat 1680
291 cttttgagtt tgacagataa tcttgtgaca agtgcttggt ctacatttgg atatgtagct 1740
293 caaggtcttg gaggtttaaa gccttggata ctctatagac ccgaaaaccg tacaactccc 1800
295 gatccttcgt gtggtcgggc tatgtcgatg gagccttgtt tccactcgcc tccattctat 1860
297 gattgtaaag cgaaaacggg tattgacacg ggaacactag ttcctcatgt gagacattgt 1920
299 gaggatatca gctggggact taagctagta tga 1953
302 <210> SEQ ID NO: 4
303 <211> LENGTH: 1684
304 <212> TYPE: DNA
305 <213> ORGANISM: Arabidopsis thaliana
307 <400> SEQUENCE: 4
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310 gtagccatgt ttggatatga tcaaggaaat ggctttgtac aagcatctag attcataaca 120
312 atggaaccaa atgtgacatc ctcatcagat gattcatcac tagtgcagag agatcaagaa 180
314 caaaaaggta aacttacttt cttctttttg ttttgaaatg tttctaaatt tttctttgaa 240
316 tgtttcatca gattctgtag atatgtctct gcttggaggg ctacttgtat ctggtttcaa 300
318 gaaagagtct tgcttgagta gataccaatc ttacctctac cgtaaagctt caccgtataa 360
320 accttcgttg catctacttt cgaagcttag agcttacgaa gagcttcata aaagatgtgg 420
322 accgggaaca agacagtata ccaatgcaga aagattgctt aaacagaaac aaacaggtga 480
324 gatggaatca caaggatgca agtatgttgt ttggatgtcg tttagcggat taggaaacag 540
326 gattatcagt attgcttctg tgtttctgta tgcaatgttg acagatagag tcttgcttgt 600
328 tgaaggaggg gaacagttcg cggatttatt ctgcgaaccg ttcctcgata ccacttggtt 660
330 actaccgaaa gatttcacct tagctagtca gttcagtggc tttggtcaaa actcagctca 720
332 ctgccatgga gatatgctga agaggaaact gattaatgaa tcctctgttt cgtctctgtc 780
334 tcatctctat cttcatctag ctcatgacta caatgagcac gacaaaatgt tcttctgtga 840
336 agaagatcaa aatctcttaa agaatgttcc ttggttgatc atgaggacaa acaacttctt 900
338 tgcaccgtct cttttcttga tttcttcttt cgaagaagag ctcggtatga tgtttcccga 960
340 gaaaggaacg gtttttcacc atttaggtcg ttacctttc catccttcaa atcaagtctg 1020
342 gggactaatc acaagatact atcaagctta cttagccaaa gctgatgaaa ggattggtct 1080
344 tcaaataaga gtctttgatg agaaatccgg cgtatctcct cgagtcacaa agcaaatcat 1140
346 ttcgtgtgtt caaaacgaga atctgttacc gagactaagc aaaggtgaag aacaatacaa 1200
348 gcagccatca gaagaagagt tgaaactcaa atctgtcttg gtcacctctt taacaacagg 1260
350 atactttgag atcttgaaaa caatgtattg ggaaaatcca actgtaacaa gagatgtgat 1320
352 tggaatacat cagccaagtc atgaaggaca tcaacaaaca gagaagctaa tgcataacag 1380
354 gaaagcttgg gcagagatgt acttactcag cttaacggat aagttggtta ttagtgcttg 1440
356 gtctacattt ggttatgtag ctcaaggact tggaggatta agagcttgga ttctgtataa 1500
358 acaagagaat caaaccaacc caaatccacc ttgcggtaga gctatgtcac cagatccttg 1560
360 tttccatgct cctccttact atgattgcaa agcaaagaaa ggaactgaca ctggtaatgt 1620
362 tgtcccgcat gttagacatt gtgaagatat tagctgggga cttaagcttg ttgacaactt 1680
364 ttag 1684
367 <210> SEQ ID NO: 5

RAW SEQUENCE LISTING DATE: 12/10/2002
PATENT APPLICATION: **US/10/037,311A** TIME: 15:43:38

Input Set : **A:\MS00-001C2 XFTASE.txt**
Output Set: **N:\CRF4\12102002\J037311A.raw**

<211> LENGTH: 538
<212> TYPE: PRT
<213> ORGANISM: Arabidopsis thaliana
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            20                  25                  30
Val Gln Ala Ser Arg Phe Ile Thr Met Glu Pro Asn Val Thr Ser Ser
        35                  40                  45
Ser Asp Asp Ser Ser Leu Val Gln Arg Asp Gln Glu Gln Lys Asp Ser
    50                  55                  60
Val Asp Met Ser Leu Leu Gly Gly Leu Leu Val Ser Gly Phe Lys Lys
65                  70                  75                  80
Glu Ser Cys Leu Ser Arg Tyr Gln Ser Tyr Leu Tyr Arg Lys Ala Ser
                85                  90                  95
Pro Tyr Lys Pro Ser Leu Leu Leu Ser Lys Leu Arg Ala Tyr Glu Glu
            100                 105                 110
Leu His Lys Arg Cys Gly Pro Gly Thr Arg Gln Tyr Thr Asn Ala Glu
        115                 120                 125
Arg Leu Leu Lys Gln Lys Gln Thr Gly Glu Met Glu Ser Gln Gly Cys
    130                 135                 140
Lys Tyr Val Val Trp Met Ser Phe Ser Gly Leu Gly Asn Arg Ile Ile
145                 150                 155                 160
Ser Ile Ala Ser Val Phe Leu Tyr Ala Met Leu Thr Asp Arg Val Leu
                165                 170                 175
Leu Val Glu Gly Gly Glu Gln Phe Ala Asp Leu Phe Cys Glu Pro Phe
            180                 185                 190
Leu Asp Thr Thr Trp Leu Leu Pro Lys Asp Phe Thr Leu Ala Ser Gln
        195                 200                 205
Phe Ser Gly Phe Gly Gln Asn Ser Ala His Cys His Gly Asp Met Leu
    210                 215                 220
Lys Arg Lys Leu Ile Asn Glu Ser Ser Val Ser Ser Leu Ser His Leu
225                 230                 235                 240
Tyr Leu His Leu Ala His Asp Tyr Asn Glu His Asp Lys Met Phe Phe
                245                 250                 255
Cys Glu Glu Asp Gln Asn Leu Leu Lys Asn Val Pro Trp Leu Ile Met
            260                 265                 270
Arg Thr Asn Asn Phe Phe Ala Pro Ser Leu Phe Leu Ile Ser Ser Phe
        275                 280                 285
Glu Glu Glu Leu Gly Met Met Phe Pro Glu Lys Gly Thr Val Phe His
    290                 295                 300
His Leu Gly Arg Tyr Leu Phe His Pro Ser Asn Gln Val Trp Gly Leu
305                 310                 315                 320
Ile Thr Arg Tyr Tyr Gln Ala Tyr Leu Ala Lys Ala Asp Glu Arg Ile
                325                 330                 335
Gly Leu Gln Ile Arg Val Phe Asp Glu Lys Ser Gly Val Ser Pro Arg
            340                 345                 350
Val Thr Lys Gln Ile Ile Ser Cys Val Gln Asn Glu Asn Leu Leu Pro
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 12/10/2002
PATENT APPLICATION: **US/10/037,311A** TIME: 15:43:39

Input Set : **A:\MS00-001C2 XFTASE.txt**
Output Set: **N:\CRF4\12102002\J037311A.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; N Pos. 10,29,61,92,101,133,147,168,197,215
Seq#:7; Xaa Pos. 10,20,31,34,49,56,66,72
Seq#:8; N Pos. 4,29,146,190,195,224,263,354,382,383,397,408,426,433,434,438
Seq#:8; N Pos. 454,481,489,511
Seq#:11; N Pos. 148,150,221,248,330,382,410,422,451,502,509,528,539,549,647
Seq#:11; N Pos. 650,659,701,702
Seq#:12; N Pos. 276,361,386,409,433,481,490
Seq#:15; N Pos. 4,5,12,16,27,50,53,72,73,81,87,98,118,147,153,159,168,205
Seq#:15; N Pos. 275

VERIFICATION SUMMARY DATE: 12/10/2002
PATENT APPLICATION: **US/10/037,311A** TIME: 15:43:39

Input Set : **A:\MS00-001C2 XFTASE.txt**
Output Set: **N:\CRF4\12102002\J037311A.raw**

L:576 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:578 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:60
L:580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:120
L:582 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:180
L:642 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:646 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:16
L:650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:32
L:654 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:48
L:658 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:64
L:780 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:784 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:120
L:786 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:180
L:788 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:240
L:790 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:300
L:792 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:360
L:794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:420
L:796 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:480
L:979 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:120
L:981 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:180
L:983 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:240
L:985 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:300
L:987 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:360
L:989 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:420
L:991 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:480
L:993 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:540
L:995 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:600
L:997 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:660
L:1060 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:240
L:1064 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:360
L:1066 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:420
L:1068 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:480
L:1211 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:1213 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:60
L:1215 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:120
L:1217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:180
L:1219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:240